L Number	Time stamp 2001/12/20 07:33
EPO; JI	2001/12/20 07:33
	PO;
DERWEN'	r
2 627 ("560/41").CCLS. USPAT;	2001/12/20 07:41
EPO; JI	PO;
DERWEN	. 1
3 ("5773640").PN. USPAT;	2001/12/20 07:34
ЕРО; Л	
DERWEN	1
5 145376 crystalliz\$ USPAT;	2001/12/20 07:42
EPO; JI	1 1
DERWEN	· •
6 253 (("560/41").CCLS.) and crystalliz\$ USPAT;	2001/12/20 07:42
EPO; JI	1 ' '
DERWEN'	- 1
1	2001/12/20 07:43
7 12490 dimethylbut\$ USPAT; EPO; J:	
DERWEN'	
8 15 ((("560/41").CCLS.) and crystalliz\$) and USPAT;	2001/12/20 08:03
dimethylbut\$ EPO; J	· ·
DERWEN	
9 153364 X-ray USPAT;	2001/12/20 11:47
EPO; J	
DERWEN	
10 225 neohexyl\$ USPAT;	2001/12/20 08:04
EPO; J	
DERWEN'	
11 5 neohexyl\$ and (("560/41").CCLS.) USPAT;	2001/12/20 08:36
EPO; J	
DERWEN'	
12 12645 neohexyl\$ or dimethylbut\$ USPAT;	2001/12/20 08:36
EPO; J	PO;
DERWEN'	· ·
13 30 (neohexyl\$ or dimethylbut\$) and USPAT;	2001/12/20 08:36
(("560/41").CCLS.) EPO; J	PO;
DERWEN	r
14 116254 seed USPAT;	2001/12/20 08:48
EPO; J.	PO;
DERWEN	r
5 ((neohexyl\$ or dimethylbut\$) and USPAT;	2001/12/20 08:37
(("560/41").CCLS.)) and seed EPO; J	PO;
DERWEN	r
16 177349 seed\$ USPAT;	2001/12/20 13:38
EPO; J	PO;
DERWEN	
17 4462 aspartame USPAT;	2001/12/20 08:54
EPO; J	1 ' '
DERWEN	
18 88 (neohexyl\$ or dimethylbut\$) and aspartame USPAT;	2001/12/20 08:54
EPO; J	
DERWEN	
19 5 seed\$ and ((neohexyl\$ or dimethylbut\$) and USPAT;	2001/12/20 11:47
aspartame) EPO; J	
DERWEN'	· ·
20 3 ("5480668").PN. USPAT;	2001/12/20 11:46
5 (5480000) .FM. EPO; J.	
DERWEN	
22 7924 seed\$ and X-ray USPAT;	2001/12/20 11:49
EPO; J	
DERWEN'	
23 0 USPAT;	2001/12/20 11:49
EPO; J	1
DERWEN'	
i	2001/12/20 11:49
USPAT; EPO; J	1 1 1
DERWEN'	
EPO; J DERWEN	
DERWEN	1

26	10	(("560/41").CCLS.) and (seed\$ and aspartame)	USPAT;	2001/12/20 11:50
İ			EPO; JPO;	
			DERWENT	
27	1		USPAT	2001/12/20 11:51
28	1		USPAT	2001/12/20 11:52
29	2	5502238.URPN.	USPAT;	2001/12/20 11:52
			EPO; JPO;	
			DERWENT	
30	10511	seed adj crystal	USPAT;	2001/12/20 13:33
			EPO; JPO;	
			DERWENT	
31	18971	polymorph\$	USPAT;	2001/12/20 13:33
1	ļ		EPO; JPO;	
1			DERWENT	
32	69	(seed adj crystal) and polymorph\$	USPAT;	2001/12/20 13:33
			EPO; JPO;	
			DERWENT	
33	44	neotame	USPAT;	2001/12/20 13:38
			EPO; JPO;	
			DERWENT	
34	3	seed\$ and neotame	USPAT;	2001/12/20 15:00
			EPO; JPO;	
			DERWENT	
35	3	5728862.pn.	USPAT;	2001/12/20 15:01
1			EPO; JPO;	
			DERWENT	

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1	IS&R	L1	3	("5510508").PN.	USPAT; EPO; JPO; DERWE NT	2001/12/20 07:33			
2	IS&R	L2	627	("560/41").CCLS.	USPAT; EPO; JPO; DERWE NT	2001/12/20 07:41			
3	IS&R	L3	3	("5773640").PN.	USPAT; EPO; JPO; DERWE NT	2001/12/20 07:34			
4	BRS	L5	14537 6	crystalliz\$	USPAT; EPO; JPO; DERWE NT	2001/12/20 07:42			
5	BRS	L6	253	12 and 15	USPAT; EPO; JPO; DERWE NT	2001/12/20 07:42			
6	BRS	L 7	12490	dimethylbut\$	USPAT; EPO; JPO; DERWE NT	2001/12/20 07:43			
7	BRS	L8	15	16 and 17	USPAT; EPO; JPO; DERWE NT	2001/12/20 08:03	-		
8	BRS	L9	15336 4	X-ray	JPO; DERWE NT	2001/12/20 11:47			
9	BRS	L10	225	neohexyl\$	JPO; DERWE NT	2001/12/20 08:04			
10	BRS	L11	5	110 and 12	USPAT; EPO; JPO; DERWE NT	2001/12/20 08:36			

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10	0

	Туре	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error	Definition
11	BRS	L12	12645	l10 or 17	JPO; DERWE NT	2001/12/20 08:36			
12	BRS	L13	30	112 and 12		2001/12/20 08:36			
13	BRS	L14	11625 4	seed	JPO; DERWE NT	2001/12/20 08:48			
14	BRS	L15	5	113 and 114		2001/12/20 08:37			
15	BRS	L16	17734 9		JPO; DERWE NT	2001/12/20 13:38			ow. string Server is:
16	BRS	L17	4462	aspartame	JPO; DERWE NT	2001/12/20 08:54			
17	BRS	L18	88	112 and 117	JPO; DERWE NT	2001/12/20 08:54			
18	BRS	L19	5	116 and 118	JPO; DERWE NT	2001/12/20 11:47			
19	IS&R	L20	3	("5480668").PN.	JPO; DERWE NT	2001/12/20 11:46			
20	BRS	L22	7924	l16 and 19	USPAT; ; EPO; JPO; DERWE NT	2001/12/20 11:49			

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18	0
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	Туре	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error	Definition
21	BRS	L23	0	116 and 14	JPO; DERWE NT	2001/12/20 11:49			
22	BRS	L24	O	19 and 14		2001/12/20 11:49			·
23	BRS	L25	687	116 and 117		2001/12/20 11:50			
24	BRS	L26	10	12 and 125		2001/12/20 11:50			
25	BRS	L27	1	"5502238".PN.	USPAT	2001/12/20 11:51			
26	BRS	L28	1	"5502238".PN.	USPAT	2001/12/20 11:52			
27	BRS	L29	2	5502238.URPN.		2001/12/20 11:52			
28	BRS	L30	10511	seed adj crystal		2001/12/20 13:33			
29	BRS	L31	18971	polymorph\$	USPAT; ; EPO; JPO; DERWE NT	2001/12/20 13:33			
30	BRS	L32	69	130 and 131	JPO; DERWE NT	2001/12/20 13:33			
31	BRS	L33	44	neotame		2001/12/20 13:38			

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21	0
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27	0
28	0
29	0
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31	0

	Туре	L #	Hits	Search Text	DBs	Time	Stamp	Comments	Error	Definition
32	BRS	L34	3	l16 and 133		2001/ 15:00				
33	BRS	L35	3	5728862.pn.		2001/: 15:01	•			

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32	0
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        Dec 17
                The CA Lexicon available in the CAPLUS and CA files
        Feb 06
                Engineering Information Encompass files have new names
NEWS
NEWS
        Feb 16
                TOXLINE no longer being updated
        Apr 23
                 Search Derwent WPINDEX by chemical structure
NEWS
     5
        Apr 23
                 PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
NEWS
        May 07
                DGENE Reload
NEWS
     7
                Published patent applications (A1) are now in USPATFULL
NEWS 8 Jun 20
NEWS 9 JUL 13
                New SDI alert frequency now available in Derwent's
                 DWPI and DPCI
NEWS 10
        Aug 23
                 In-process records and more frequent updates now in
                 MEDLINE
                 PAGE IMAGES FOR 1947-1966 RECORDS IN CAPLUS AND CA
NEWS 11
        Aug 23
                 Adis Newsletters (ADISNEWS) now available on STN
NEWS 12
        Aug 23
                 IMSworld Pharmaceutical Company Directory name change
NEWS 13
        Sep 17
                 to PHARMASEARCH
NEWS 14 Oct 09
                 Korean abstracts now included in Derwent World Patents
                 Index
NEWS 15 Oct 09
                Number of Derwent World Patents Index updates increased
NEWS 16 Oct 15
                Calculated properties now in the REGISTRY/ZREGISTRY File
NEWS 17
                Over 1 million reactions added to CASREACT
        Oct 22
        Oct 22
NEWS 18
                DGENE GETSIM has been improved
                 AAASD no longer available
NEWS 19
        Oct 29
                New Search Capabilities USPATFULL and USPAT2
NEWS 20 Nov 19
NEWS 21 Nov 19
                 TOXCENTER(SM) - new toxicology file now available on STN
NEWS 22
        Nov 29
                COPPERLIT now available on STN
        Nov 29
                DWPI revisions to NTIS and US Provisional Numbers
NEWS 23
                Files VETU and VETB to have open access
NEWS 24
        Nov 30
NEWS 25
                WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002
        Dec 10
NEWS 26
        Dec 10 DGENE BLAST Homology Search
NEWS 27
        Dec 17 WELDASEARCH now available on STN
NEWS 28 Dec 17
                STANDARDS now available on STN
                New fields for DPCI
NEWS 29
        Dec 17
NEWS 30
        Dec 19
                CAS Roles modified
NEWS 31 Dec 19 1907-1946 data and page images added to CA and CAplus
             August 15 CURRENT WINDOWS VERSION IS V6.0c,
NEWS EXPRESS
              CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP),
              AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001
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              Welcome Banner and News Items
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             Direct Dial and Telecommunication Network Access to STN
             CAS World Wide Web Site (general information)
NEWS WWW
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=> aspartame

2544 ASPARTAME 6 ASPARTAMES

```
(ASPARTAME OR ASPARTAMES)
=> dimethylbutyl
         1168 DIMETHYLBUTYL
=> 11 and 12
L3
           40 L1 AND L2
=> seed?
       202700 SEED?
=> 13 and 14
             5 L3 AND L4
=> d 15 1-5 ti
     ANSWER 1 OF 5 CAPLUS COPYRIGHT 2001 ACS
L5
     Pharmaceutical compositions containing neotame
    ANSWER 2 OF 5 CAPLUS COPYRIGHT 2001 ACS
L5
    Nutraceuticals having N-[N-(3,3-dimethylbutyl
     )-L-.alpha.-aspartyl]-L-phenylalanine 1-methyl ester
     ANSWER 3 OF 5 CAPLUS COPYRIGHT 2001 ACS
L5
    Cereals and cereal-based food sweetened with neotame
TI
    ANSWER 4 OF 5 CAPLUS COPYRIGHT 2001 ACS
1.5
    Crystallization processes of stable crystals of aspartame
ΤI
     derivatives
1.5
    ANSWER 5 OF 5 CAPLUS COPYRIGHT 2001 ACS
    Cocrystallization of sugar and n-[n-(3,3-dimethylbutyl
TI
    )-1-.alpha.-aspartyl]-l-phenylalanine 1-methyl ester
=> d 15 4-5 ti
    ANSWER 4 OF 5 CAPLUS COPYRIGHT 2001 ACS
L5
     Crystallization processes of stable crystals of aspartame
     derivatives
    ANSWER 5 OF 5 CAPLUS COPYRIGHT 2001 ACS
TI
    Cocrystallization of sugar and n-[n-(3,3-dimethylbutyl
    )-1-.alpha.-aspartyl]-l-phenylalanine 1-methyl ester
=> d 15 4-5 ti fbib abs
    ANSWER 4 OF 5 CAPLUS COPYRIGHT 2001 ACS
T.5
TI
    Crystallization processes of stable crystals of aspartame
    derivatives
AN
    2000:314715 CAPLUS
DN
    132:321237
ΤI
    Crystallization processes of stable crystals of aspartame
    derivatives
    Kawahara, Shigeru; Kishishita, Akihiro; Nagashima, Kazutaka; Takemoto,
IN
    Tadashi
PA
    Ajinomoto Co., Inc., Japan
SO
    PCT Int. Appl., 24 pp.
    CODEN: PIXXD2
```

2544 ASPARTAME

T.1

```
Patent
LA
    Japanese
FAN.CNT 1
                     KIND DATE
                                          APPLICATION NO. DATE
    PATENT NO.
                     ----
     ______
                                          -----
                                     WO 1999-JP6082 19991101
                    A1
                           20000511
    WO 2000026234
PΙ
        W: BR, CA, CN, HU, KR, MX, RU, US
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE
                                           JP 1998-310225 A 19981030
                                           JP 1998-310226 A 19981030
     JP 2000136196
                      A2
                            20000516
                                           JP 1998-310225
                                                          19981030
                                                          19981030
                                           JP 1998-310226
     JP 2000136197
                      A2
                            20000516
                            20011106
                                          BR 1999-14826
                                                           19991101
    BR 9914826
                      Α
                                           JP 1998-310225 A 19981030
                                           JP 1998-310226 A 19981030
                                           WO 1999-JP6082 W 19991101
    A crystn. process for forming a stable crystal of N-(3,3-
AΒ
     dimethylbutyl) -L-.alpha.-aspartyl-L-phenylalanine Me ester,
    comprises using either water or a mixt. of water with a lower alc. as the
    crystq. solvent and controlling the crystn. point to .gtoreq. 30.degree.;
     and another crystn. process comprises using either water or a mixt. of
    water with a lower alc. as the crystg. solvent and using as the
     seed crystal, a crystal of N-(3,3-dimethylbutyl)-APM
     exhibiting peculiar peaks of diffracted x-ray at least at diffraction
     angles (2 .theta., CuK.alpha. ray) of 6.0.degree., 24.8.degree.,
     8.2.degree. and 16.5.degree. to thereby crystallize the above objective
     crystal preferentially. These crystn. processes enable the const.
     formation of stable crystals of N-(3,3-dimethylbutyl)-APM at a
     low cost.
RE.CNT 18
(1) Ajinomoto Co Inc; JP 04346997 A CAPLUS
(2) Ajinomoto Co Inc; EP 514939 A1 1992 CAPLUS
(3) Anon; US 5248806 A CAPLUS
(7) Nofre Claude; FR 2719590 A CAPLUS
(8) Nofre Claude; FR 2719591 A CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
1.5
    ANSWER 5 OF 5 CAPLUS COPYRIGHT 2001 ACS
    Cocrystallization of sugar and n-[n-(3,3-dimethylbutyl
TΙ
     )-1-.alpha.-aspartyl]-l-phenylalanine 1-methyl ester
     2000:190873 CAPLUS
DN
     132:221732
     Cocrystallization of sugar and n-[n-(3,3-dimethylbutyl
     )-1-.alpha.-aspartyl]-l-phenylalanine 1-methyl ester
     Fotos, Jim; Bishay, Ihab E.; Prakash, Indra; Wachholder, Kurt; Desai,
    Nitin
    Nutrasweet Co., USA
     PCT Int. Appl., 29 pp.
SO
     CODEN: PIXXD2
DΤ
     Patent
    English
LA
FAN.CNT 1
                    KIND DATE
                                         APPLICATION NO. DATE
     PATENT NO.
                           20000323 WO 1999-US21476 19990916
                     A1
     WO 2000015050
ΡI
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            CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
            IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
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SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                           US 1998-154568 A 19980917
                            20010410
                                           US 1998-154568 19980917
     US 6214402
                       B1
     AU 9961505
                      A1
                            20000403
                                           AU 1999-61505
                                                           19990916
                                           US 1998-154568 A 19980917
                                           WO 1999-US21476W 19990916
                                           EP 1999-948295 19990916
                      A1
                            20011010
     EP 1139794
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
                                           US 1998-154568 A 19980917
                                           WO 1999-US21476W 19990916
    Cocrystn. of N-[N-(3,3-dimethylbutyl)-1-.alpha.-aspartyl]-L-
AB
    phenylalanine 1-Me ester (neotame) with sugar (sucrose) in various ratios
     is achieved. Thus, a sucrose soln. (195 g/100 mL) is heated and
     seeded with 0.225 g neotame and 5 g sucrose to afford a product
     that was sugar cocrystd. with neotame. The sugar cocrystd. sweetener is
     very sol. in water and has no dusting problems.
RE.CNT 4
RE
(1) Ajinomoto KK; JP 59063158 A 1984 CAPLUS
(2) Nofre, C; US 5480668 A 1996 CAPLUS
(3) Shiyouwa Sangyo KK; JP 60114169 A 1985 CAPLUS
(4) The Nutrasweet Company; WO 9930576 A 1999 CAPLUS
=> d his
     (FILE 'HOME' ENTERED AT 11:35:04 ON 20 DEC 2001)
     FILE 'CAPLUS' ENTERED AT 11:35:12 ON 20 DEC 2001
L1
           2544 ASPARTAME
           1168 DIMETHYLBUTYL
L2
             40 L1 AND L2
L3
         202700 SEED?
L4
L5
             5 L3 AND L4
=> neohexyl
            60 NEOHEXYL
L6
=> neohexyl?
           73 NEOHEXYL?
=> 17 and 11
             3 L7 AND L1
=> 18 not 15
1.9
             3 L8 NOT L5
=> d 19 1-3 ti
    ANSWER 1 OF 3 CAPLUS COPYRIGHT 2001 ACS
     Use of additives to modify the taste characteristics of N-neohexyl
     -.alpha.-aspartyl-L-phenylalanine methyl ester
    ANSWER 2 OF 3 CAPLUS COPYRIGHT 2001 ACS
L9
    Use of N-neohexyl-.alpha.-aspartyl-L-phenylalanine methyl ester
     as a flavor modifier
```

```
ANSWER 3 OF 3 CAPLUS COPYRIGHT 2001 ACS
     A method for the preparation of N-neohexyl-.alpha.-aspartyl-L-
ΤI
     phenylalanine methyl ester from imidazolidin-4-one intermediates
=> x-ray
       1213031 X
        781394 RAY
        156593 RAYS
        843513 RAY
                 (RAY OR RAYS)
       630673 X-RAY
L10
                 (X(W)RAY)
=> 110 and 13
             4 L10 AND L3
L11
=> d l11 1-4 ti
L11 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2001 ACS
     Investigation of Polymorphism in Aspartame and Neotame Using
     Solid-State NMR Spectroscopy
L11 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2001 ACS
     Crystallization processes of stable crystals of aspartame
     derivatives
L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2001 ACS
     Novel aspartame derivative crystal and process for producing the
     same
L11 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2001 ACS
     Novel aspartame derivative crystal and process for producing the
     same
=> d l11 1,3,4 ti fbib abs
L11 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2001 ACS
     Investigation of Polymorphism in Aspartame and Neotame Using
     Solid-State NMR Spectroscopy
AN
     2000:620337 CAPLUS
DN
     133:349355
     Investigation of Polymorphism in Aspartame and Neotame Using
     Solid-State NMR Spectroscopy
     Zell, M. T.; Padden, B. E.; Grant, D. J. W.; Schroeder, S. A.;
Wachholder,
     K. L.; Prakash, I.; Munson, E. J.
     Department of Chemistry, University of Minnesota, Minneapolis, MN, 55455,
     USA
SO
     Tetrahedron (2000), 56(36), 6603-6616
     CODEN: TETRAB; ISSN: 0040-4020
     Elsevier Science Ltd.
PR
DT
     Journal
LA
     English
     We have been studying the artificial sweeteners aspartame
AB
     (1-aspartyl-1-phenylalanine Me ester) and neotame (N-(3,3-
     dimethylbutyl)-l-aspartyl-l-phenylalanine Me ester) as compds.
     which exhibit polymorphism. 13C CP/MAS NMR shows that aspartame
     exists in three distinct forms at room temp., depending on prepn.
```

conditions. For two of the forms, there exists three resonances for each carbon, indicating three crystallog. inequivalent sites and therefore three distinct conformations and/or arrangements of aspartame mols. within the unit cell. Two-dimensional exchange spectroscopy using high-speed MAS and very high-power 1H decoupling on uniformly 13C labeled aspartame is a very powerful tool for unambiguously assigning each resonance in the NMR spectrum of aspartame. Even for forms of aspartame that possesses multiple crystallog. inequivalent sites, it is possible to identify connectivities between the nuclei of each conformation and/or arrangement of mols. using two-dimensional NMR techniques. 13C CP/MAS NMR also shows that neotame exists in multiple solid forms. The most stable form of neotame under ambient conditions is a monohydrate. However, other forms can be prepd. by heating or using reduced pressures. High-speed magic-angle spinning can cause a change in polymorphic forms. Three different forms were produced upon spinning at 29 kHz for several days. The monohydrate was identified as the second form produced. Also, altering the crystn. and drying conditions can generate mixts. of the solid forms of neotame. When the monohydrate form of neotame was heated under vacuum, a mixt. of anhydrate forms was produced. In the reconversion to the monohydrate upon exposure to moisture under ambient conditions no significant changes were obsd. in

the

powder X-ray diffraction patterns during part of the reconversion process. This suggests that no change in form had occurred. The 13C CP/MAS NMR spectra, however, indicated the presence of many forms of neotame during the reconversion. One possible reason that solid-state NMR spectroscopy detected the changes in forms and powder X-ray diffraction did not is that the conformation of the neotame mols. changes between forms but the unit cell parameters do not change significantly.

RE.CNT 47

RE

- (1) Andrew, E; Prog NMR Spectrosc 1971, V8, P1 CAPLUS
- (2) Anon; US 5510508 CAPLUS
- (3) Anon; US 5728862 CAPLUS
- (4) Anwar, J; J Pharm Sci 1989, V78, P337 CAPLUS
- (5) Bennett, A; J Chem Phys 1992, V96, P8624 CAPLUS
- ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L11 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2001 ACS
- TI Novel **aspartame** derivative crystal and process for producing the same
- AN 1999:736740 CAPLUS
- DN 131:321817
- TI Novel aspartame derivative crystal and process for producing the
- IN Kishishita, Akihiro; Nagashima, Kazutaka; Ishida, Hirotoshi; Nagai, Takeshi
- PA Ajinomoto Co., Inc., Japan
- SO PCT Int. Appl., 18 pp.

CODEN: PIXXD2

- DT Patent
- LA Japanese

FAN.CNT 1

W: BR, CA, CN, HU, KR, MX, RU, US
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE

JP 1998-125992 A 19980508

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BR 9910298
                            20010130
                                           BR 1999-10298
                                                            19990426
                      Α
                                           JP 1998-125992 A 19980508
                                           WO 1999-JP2200 W 19990426
                     A1 20010214
                                          EP 1999-917152 19990426
     EP 1076064
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
                                           JP 1998-125992 A 19980508
                                           WO 1999-JP2200 W 19990426
    A process for producing crystals of a Me ester of N-[N-(3,3-
AΒ
     dimethylbutyl)-L-.alpha.-aspartyl]-L-phenylalanine which comprises
     pptg. the ester from an aq. soln. thereof at a crystn. temp. of 25 >C or
     lower, further cooling the soln. if desired, subsequently sepg. the pptd.
     crystals (B-form crystals) by solid-liq. sepn., and then drying the
     crystals. The thus-dried crystals are novel crystals (D-form crystals)
of
     the ester which have an excellent rate of dissoln. These crystals, when
     examd. by x-ray powder diffractometry, have
     characteristic x-ray diffraction peaks at least at
     diffraction angles of 5.4>, 8.4>, 18.8>, and 17.6> (2<j, CuK.alpha.
line).
RE.CNT 14
RE
(1) Ajinomoto Co, Inc; JP 02-243699 A 1990 CAPLUS(2) Ajinomoto Co, Inc; JP 04-346769 A 1992 CAPLUS
(3) Anon; EP 362706 A1 CAPLUS
(4) Anon; EP 405273 A1 CAPLUS
(5) Anon; EP 514937 A1 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
L11 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2001 ACS
    Novel aspartame derivative crystal and process for producing the
TΙ
     same
AN
     1999:736738 CAPLUS
DN
    131:321816
    Novel aspartame derivative crystal and process for producing the
    Kishishita, Akihiro; Nagashima, Kazutaka; Ishida, Hirotoshi; Nagai,
     Takeshi
    Ajinomoto Co., Inc., Japan
PΆ
    PCT Int. Appl., 17 pp.
SO
     CODEN: PIXXD2
DT
     Patent
    Japanese
LA
FAN.CNT 1
    PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                                           ______
                           19991118
                     A1
                                          WO 1999-JP2199 19990426
PΤ
     WO 9958553
         W: BR, CA, CN, HU, KR, MX, RU, US
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
                                           JP 1998-125991 A 19980508
                                           JP 1998-207605 A 19980723
     JP 2000026496
                            20000125
                                           JP 1998-207605 19980723
                      A2
                                           JP 1998-125991 A 19980508
     BR 9910303
                       Α
                            20010130
                                           BR 1999-10303
                                                            19990426
                                           JP 1998-125991 A 19980508
                                           JP 1998-207605 A 19980723
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                                           EP 1999-917151 19990426
     EP 1076063
                      A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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JP 11322788

A2

19991124

JP 1998-125992

19980508

=> d 115 1-2 ti fbib abs

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JP 1998-125991 A 19980508
                                            JP 1998-207605 A 19980723
                                            WO 1999-JP2199 W 19990426
     A Me ester of N-[N-(3,3-dimethylbutyl)-L-.alpha.-aspartyl]-L-
AB
     phenylalanine (A-form crystals) having characteristic x-
     ray diffraction peaks, e.g., at diffraction angles of at least
     6.0>, 24.8>, 8.2>, and 16.5> (2<j, CuK.alpha. line) is dried to a water
     content below 3%. The thus-dried crystals are novel crystals (C-form
     crystals) of the Me ester of N-[N-(3,3-dimethylbutyl
     )-L-.alpha.-aspartyl]-L-phenylalanine which have an excellent rate of
     dissoln. These crystals, when examd. by x-ray powder
     diffractometry, have characteristic \mathbf{x}\text{-}\mathbf{ray} diffraction
     peaks at least at diffraction angles of 7.1>, 19.8>, 17.3>, and 17.7>
     (2<j, CuK.alpha. line). When the C-form crystals (av. size, 100-1400
     .mu.m) are in the form of granules, they have further improved soly.
RE.CNT 23
RE
(1) Ajinomoto Co Inc; JP 59-172444 A 1984 CAPLUS
(2) Ajinomoto Co Inc; JP 60-37949 A 1985 CAPLUS
(3) Ajinomoto Co Inc; JP 63-177774 A 1988 CAPLUS
(4) Ajinomoto Co Inc; JP 63-33396 A 1988 CAPLUS
(5) Ajinomoto Co, Inc; JP 03-204895 A 1991 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
=> crystal
        927171 CRYSTAL
        524584 CRYSTALS
       1174833 CRYSTAL
L12
                 (CRYSTAL OR CRYSTALS)
=> d his
     (FILE 'HOME' ENTERED AT 11:35:04 ON 20 DEC 2001)
     FILE 'CAPLUS' ENTERED AT 11:35:12 ON 20 DEC 2001
           2544 ASPARTAME
L1
           1168 DIMETHYLBUTYL
1.2
L3
             40 L1 AND L2
         202700 SEED?
L4
             5 L3 AND L4
L_5
             60 NEOHEXYL
L6
             73 NEOHEXYL?
L7
L8
              3 L7 AND L1
L9
              3 L8 NOT L5
         630673 X-RAY
L10
              4 L10 AND L3
L11
L12
        1174833 CRYSTAL
=> 14 and 112
         15450 L4 AND L12
L13
=> 110 and 113
          1332 L10 AND L13
L14
=> 114 and 11
             2 L14 AND L1
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L15 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2001 ACS
     Crystallization processes of stable crystals of
     aspartame derivatives
ΔN
     2000:314715 CAPLUS
DN
    132:321237
    Crystallization processes of stable crystals of
TI
     aspartame derivatives
IN
    Kawahara, Shigeru; Kishishita, Akihiro; Nagashima, Kazutaka; Takemoto,
    Tadashi
    Ajinomoto Co., Inc., Japan
PΑ
SO
     PCT Int. Appl., 24 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    Japanese
FAN.CNT 1
    PATENT NO.
                    KIND DATE
                                         APPLICATION NO. DATE
    WO 2000026234 A1 20000511
                                        WO 1999-JP6082 19991101
PΙ
        W: BR, CA, CN, HU, KR, MX, RU, US
        RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
            PT, SE
                                           JP 1998-310225 A 19981030
                                           JP 1998-310226 A 19981030
     JP 2000136196
                      A2
                            20000516
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                                                           19981030
                                          JP 1998-310226
                                                          19981030
     JP 2000136197
                      A2
                            20000516
                            20011106
                                          BR 1999-14826
                                                           19991101
    BR 9914826
                      Α
                                           JP 1998-310225 A 19981030
                                           JP 1998-310226 A 19981030
                                           WO 1999-JP6082 W 19991101
    A crystn. process for forming a stable crystal of
    \hbox{N-(3,3-dimethylbutyl)-L-.alpha.-aspartyl-L-phenylalanine Me ester,}\\
    comprises using either water or a mixt. of water with a lower alc. as the
     crystg. solvent and controlling the crystn. point to .gtoreq. 30.degree.;
     and another crystn. process comprises using either water or a mixt. of
    water with a lower alc. as the crystg. solvent and using as the
     seed crystal, a crystal of
    N-(3,3-\text{dimethylbutyl})-\text{APM} exhibiting peculiar peaks of diffracted
    x-ray at least at diffraction angles (2 .theta.,
     CuK.alpha. ray) of 6.0.degree., 24.8.degree., 8.2.degree. and
16.5.degree.
     to thereby crystallize the above objective crystal
     preferentially. These crystn. processes enable the const. formation of
     stable crystals of N-(3,3-dimethylbutyl)-APM at a low cost.
RE.CNT 18
(1) Ajinomoto Co Inc; JP 04346997 A CAPLUS
(2) Ajinomoto Co Inc; EP 514939 A1 1992 CAPLUS
(3) Anon; US 5248806 A CAPLUS
(7) Nofre Claude; FR 2719590 A CAPLUS
(8) Nofre Claude; FR 2719591 A CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
L15 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2001 ACS
     The "bundle-like" crystals in aspartame
ΤI
     crystallization
ΔN
     1989:495772 CAPLUS
DN
     111:95772
     The "bundle-like" crystals in aspartame
ΤI
     crystallization
     Kishimoto, S.; Nagashima, N.; Naruse, M.; Toyokura, K.
ΑU
    Cent. Res. Lab., Ajinomoto Co., Inc., Kawasaki, 210, Japan
CS
```

Process Technol. Proc. (1989), 6(Ind. Cryst. 87), 511-14 CODEN: PTPREM Journal DTEnglish TιA Batch cooling crystn. of aspartame without stirring, with rapid cooling and high initial concn. of feed soln. resulted in the prodn. of large rod-like crystals in which several needle crystals appeared to be bundles together under SEM. These bundle-like crystals were difficult to grow in general industrial crystallizer, such as a stirred tank or a fluidized bed. Xray diffraction data suggested that the bundle-like crystal of aspartame was not an agglomerate but a sort of polysynthetic twin; however, crystallites grown divergently on a seeded bundle-like crystal under a stirred condition were agglomerate since they had not been able to keep the twinning structure caused by increasing of degree of disorder between the bundled crystals. => DIS HIST (FILE 'HOME' ENTERED AT 11:35:04 ON 20 DEC 2001) FILE 'CAPLUS' ENTERED AT 11:35:12 ON 20 DEC 2001 2544 ASPARTAME L11168 DIMETHYLBUTYL L2 40 L1 AND L2 L3 202700 SEED? L4L5 5 L3 AND L4 60 NEOHEXYL L6 73 NEOHEXYL? L7 L8 3 L7 AND L1 L9 3 L8 NOT L5 630673 X-RAY L104 L10 AND L3 L11 1174833 CRYSTAL L12

=>

L13 L14

L15

Executing the logoff script...

15450 L4 AND L12

1332 L10 AND L13 2 L14 AND L1

=> LOG H

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LOGINID:ssspta1623paz

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

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                 Web Page URLs for STN Seminar Schedule - N. America
NEWS
NEWS
        Dec 17
                 The CA Lexicon available in the CAPLUS and CA files
                Engineering Information Encompass files have new names
NEWS
     3
        Feb 06
                TOXLINE no longer being updated
NEWS
        Feb 16
                Search Derwent WPINDEX by chemical structure
NEWS 5
        Apr 23
                PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA
NEWS 6
        Apr 23
        May 07
                DGENE Reload
NEWS
     7
                Published patent applications (A1) are now in USPATFULL
NEWS
     8
        Jun 20
                New SDI alert frequency now available in Derwent's
NEWS
     9
        JUL 13
                 DWPI and DPCI
                 In-process records and more frequent updates now in
NEWS 10
        Aug 23
                 MEDLINE
NEWS 11
                 PAGE IMAGES FOR 1947-1966 RECORDS IN CAPLUS AND CA
        Aug 23
                 Adis Newsletters (ADISNEWS) now available on STN
NEWS 12
        Aug 23
                 IMSworld Pharmaceutical Company Directory name change
NEWS 13
        Sep 17
                 to PHARMASEARCH
                Korean abstracts now included in Derwent World Patents
NEWS 14
        Oct 09
                 Index
                Number of Derwent World Patents Index updates increased
NEWS 15
        Oct 09
                Calculated properties now in the REGISTRY/ZREGISTRY File
NEWS 16
        Oct 15
NEWS 17
        Oct 22 Over 1 million reactions added to CASREACT
NEWS 18 Oct 22 DGENE GETSIM has been improved
NEWS 19 Oct 29 AAASD no longer available
                New Search Capabilities USPATFULL and USPAT2
NEWS 20 Nov 19
                TOXCENTER(SM) - new toxicology file now available on STN
NEWS 21
        Nov 19
NEWS 22
        Nov 29 COPPERLIT now available on STN
NEWS 23 Nov 29 DWPI revisions to NTIS and US Provisional Numbers
NEWS 24 Nov 30 Files VETU and VETB to have open access
NEWS 25 Dec 10 WPINDEX/WPIDS/WPIX New and Revised Manual Codes for 2002
NEWS 26
        Dec 10 DGENE BLAST Homology Search
                WELDASEARCH now available on STN
NEWS 27
        Dec 17
NEWS 28 Dec 17 STANDARDS now available on STN
        Dec 17 New fields for DPCI
NEWS 29
NEWS 30 Dec 19 CAS Roles modified
NEWS 31 Dec 19 1907-1946 data and page images added to CA and CAplus
NEWS EXPRESS August 15 CURRENT WINDOWS VERSION IS V6.0c,
              CURRENT MACINTOSH VERSION IS V6.0 (ENG) AND V6.0J (JP),
              AND CURRENT DISCOVER FILE IS DATED 07 AUGUST 2001
              STN Operating Hours Plus Help Desk Availability
NEWS HOURS
NEWS INTER
              General Internet Information
              Welcome Banner and News Items
NEWS LOGIN
              Direct Dial and Telecommunication Network Access to STN
NEWS PHONE
              CAS World Wide Web Site (general information)
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=> +conrolling polymorhism
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Some commands only work in certain files. For example, the EXPAND
command can only be used to look at the index in a file which has an
index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
commands which can be used in this file.

=> file caplus
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SINCE FILE TOTAL ENTRY SESSION 0.15 0.15

FULL ESTIMATED COST

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=> conrolling polymorphism
             6 CONROLLING
         68980 POLYMORPHISM
         16323 POLYMORPHISMS
         72644 POLYMORPHISM
                 (POLYMORPHISM OR POLYMORPHISMS)
L1
             0 CONROLLING POLYMORPHISM
                 (CONROLLING (W) POLYMORPHISM)
=> polymorphism
         68980 POLYMORPHISM
         16323 POLYMORPHISMS
         72644 POLYMORPHISM
                 (POLYMORPHISM OR POLYMORPHISMS)
=> seed
        102816 SEED
         75101 SEEDS
L3
        141941 SEED
                 (SEED OR SEEDS)
=> 12 and 13
           927 L2 AND L3
L4
=> crystal structure
        927171 CRYSTAL
        524584 CRYSTALS
       1174833 CRYSTAL
                 (CRYSTAL OR CRYSTALS)
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        542491 STRUCTURES
       2323913 STRUCTURE
                 (STRUCTURE OR STRUCTURES)
        357788 CRYSTAL STRUCTURE
L5
                 (CRYSTAL (W) STRUCTURE)
=> 14 and 15
            10 L4 AND L5
=> d 16 1-10
     ANSWER 1 OF 10 CAPLUS COPYRIGHT 2001 ACS
L6
     2001:385260 CAPLUS
AN
DN
     135:148815
     Crystallization and preliminary x-ray studies of snake gourd lectin:
TI
     homology with type II ribosome-inactivating proteins
     Manoj, N.; Jeyaprakash, A. Arockia; Pratap, J. V.; Komath, Sneha Sudha;
ΑU
     Kenoth, Roopa; Swamy, Musti. J.; Vijayan, M.
CS
     Molecular Biophysics Unit, Indian Institute of Science, Bangalore, 560
     012, India
SO
     Acta Crystallogr., Sect. D: Biol. Crystallogr. (2001), D57(6), 912-914
     CODEN: ABCRE6; ISSN: 0907-4449
     Munksgaard International Publishers Ltd.
PΒ
DT
     Journal
    English
RE.CNT 27
RE
(1) Bostwick, D; Plant Mol Biol 1994, V26, P887 CAPLUS
(2) Bouckaert, J; Curr Opin Struct Biol 1999, V9, P572 CAPLUS
(3) Brunger, A; Acta Cryst 1998, VD54, P905 CAPLUS
```

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(4) Falasca, A; FEBS Lett 1989, V246, P159 CAPLUS
(5) Jones, T; Acta Cryst 1991, VA47, P110 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT
    ANSWER 2 OF 10 CAPLUS COPYRIGHT 2001 ACS
L6
    1996:573709 CAPLUS
ΑŃ
    125:284550
DN
    Behavior of thiazole acid polymorphs in methanol-water mixed solution
ΤI
    Koqa, Keiichi; Kawakami, Ryouichi; Kagara, Kooji
ΑU
    Technol. Development Lab., Fujisawa Pharmaceutical Co., Ltd., Osaka, 532,
so
    Kagaku Kogaku Ronbunshu (1996), 22(5), 1174-1179
    CODEN: KKRBAW; ISSN: 0386-216X
    Journal
DT
LA
    Japanese
    ANSWER 3 OF 10 CAPLUS COPYRIGHT 2001 ACS
L6
    1994:567471 CAPLUS
AN
DN
    121:167471
    Manufacture of polymorphic single crystals
TI
    Nakatani, Hiroyuki; Hidaka, Takahiro; Hayashi, Hideki
IN
PA
    Sekisui Chemical Co Ltd, Japan
    Jpn. Kokai Tokkyo Koho, 5 pp.
    CODEN: JKXXAF
DT
    Patent
    Japanese
LA
FAN.CNT 1
                     KIND DATE
                                          APPLICATION NO. DATE
    PATENT NO.
                           _____
                                          _____
                                          JP 1992-234432 19920902
                    A2
                           19940329
    JP 06087685
    ANSWER 4 OF 10 CAPLUS COPYRIGHT 2001 ACS
L6
    1993:465933 CAPLUS
AN
    119:65933
DN
    Cloning, expression, and crystallization of jack bean (Canavalia
     ensiformis) canavalin
    Ng, Joseph D.; Ko, Tzu Ping; McPherson, Alexander
    Dep. Biochem., Univ. California, Riverside, CA, 92521, USA
    Plant Physiol. (1993), 101(3), 713-28
SO
    CODEN: PLPHAY; ISSN: 0032-0889
DT
    Journal
    English
LA
    ANSWER 5 OF 10 CAPLUS COPYRIGHT 2001 ACS
L6
    1990:137777 CAPLUS
AN
DN
    112:137777
     Seeding effects on solidification behavior of cocoa butter and dark
ΤI
    chocolate. I. Kinetics of solidification
ΑU
    Hachiya, Iwao; Koyano, Tetsuo; Sato, Kiyotaka
    Food Res. Dev. Lab., Maiji Seika Kaisha Ltd., Sakado, 350-02, Japan
CS
    JAOCS, J. Am. Oil Chem. Soc. (1989), 66(12), 1757-62
     CODEN: JJASDH
DΤ
    Journal
LA
    English
1.6
    ANSWER 6 OF 10 CAPLUS COPYRIGHT 2001 ACS
     1989:448450 CAPLUS
AN
     111:48450
DN
TI
    The crystal growth of bismuth tellurite (Bi2Te4O11) from the melt and its
    polymorphism
    Astaf'ev, S. A.; Abdullaev, A. A.; Dolgikh, V. A.; Popovkin, B. A.
```

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Mosk. Gos. Univ., Moscow, USSR
      Izv. Akad. Nauk SSSR, Neorg. Mater. (1989), 25(5), 870-2
 SO
      CODEN: IVNMAW; ISSN: 0002-337X
 DT
      Journal
 LΑ
      Russian
      ANSWER 7 OF 10 CAPLUS COPYRIGHT 2001 ACS
 L6
 AN
      1976:6546 CAPLUS
 DN
      84:6546
      Polymorphism of copper phthalocyanine
 ΑU
      Horn, Dieter; Honigmann, Berthold
 CS
      Hauptlab., BASF A.-G., Ludwigshafen, Ger.
      FATIPEC Congr. (1974), 12, 181-9
 SO
      CODEN: FAPVAP
 DT
      Journal
 LΑ
      German
      ANSWER 8 OF 10 CAPLUS COPYRIGHT 2001 ACS
 L6
 AN
      1975:436152 CAPLUS
 DN
      83:36152
     Double molybdates and tungstates with the composition M5Bi(EO4)4, M =
      potassium or rubidium, E = molybdenum or tungsten
ΑU
      Klevtsov, P. V.; Vinokurov, V. A.
 CS
      Inst. Neorg. Khim., Novosibirsk, USSR
     Izv. Akad. Nauk SSSR, Neorg. Mater. (1975), 11(2), 387-8
SO
     CODEN: IVNMAW
DТ
     Journal
T.A
     Russian
     ANSWER 9 OF 10 CAPLUS COPYRIGHT 2001 ACS
L6
AN
     1971:35443 CAPLUS
     74:35443
TI
     Crystal growth and dimorphism of lithium iodate LiIO3
ΑU
     Umezawa, Tetsutaro; Ninomiya, Yuichi; Tatuoka, Sizuo
CS
     NHK Tech. Res. Lab., Tokyo, Japan
SO
     J. Appl. Crystallogr. (1970), 3(Pt. 5), 417
     CODEN: JACGAR
DT
     Journal
LA
     English
L6
     ANSWER 10 OF 10 CAPLUS COPYRIGHT 2001 ACS
AN
     1945:6871 CAPLUS
DN
     39:6871
OREF 39:1067e-g
     Thermal properties of fats and oils. IV. Some observations on the
     polymorphism and x-ray diffraction characteristics of tristearin
     and a highly hydrogenated cotton-seed oil
     Bailey, A. E.; Jefferson, M. E.; Kreeger, Florence B.; Bauer, S. T.
AU
SO
     Oil & Soap (1945), 22, 10-13
DT
     Journal
LA
     Unavailable
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